

# A Post-Processing System for Physics Based Derived Rotorcraft Computational Aero-Acoustics Simulations, Phase II

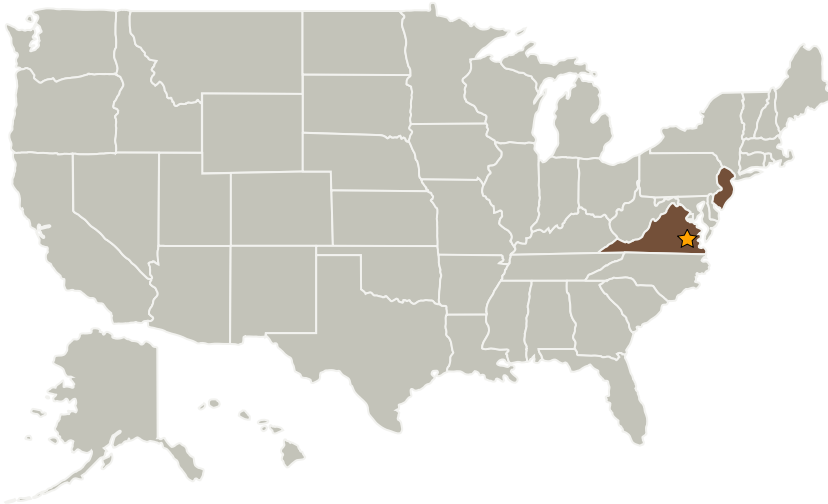
Completed Technology Project (2007 - 2009)



## Project Introduction

Intelligent Light, the makers of the FIELDVIEW CFD post-processing software, in response to NASA SBIR Phase 2 solicitation, proposes an effort that addresses A2.10 Rotorcraft-Acoustics. The proposed work shall result in a specialized prototype post-processing system designed for large rotorcraft acoustics problems. This system is designated as RCAAPS -- Rotorcraft Computational Aero-Acoustics Post-processing System. It is designed to expedite the exploration of large transient datasets that result from multi-physics based (i.e. Large-Eddy Simulation with aeroelasticity and acoustics) simulations as it pertains to rotorcraft performance predictions especially maneuver. It consists of specially configured hardware, flow solver, acoustics and post-processing software enhanced to take advantage of contemporary SMP computer clusters during both compute and I/O. The prototype system developed under this SBIR will revolutionize the way investigators explore large datasets and allows for more complete and thorough use of the complete CFD and acoustics data.

## Primary U.S. Work Locations and Key Partners



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## Organizational Responsibility

### Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

### Lead Center / Facility:

Langley Research Center (LaRC)

### Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Organizations Performing Work	Role	Type	Location
★ Langley Research Center(LaRC)	Lead Organization	NASA Center	Hampton, Virginia
JMSI, Inc. dba Intelligent Light	Supporting Organization	Industry	Rutherford, New Jersey

Primary U.S. Work Locations	
New Jersey	Virginia

## Project Transitions

**November 2007:** Project Start**November 2009:** Closed out

## Project Management

**Program Director:**

Jason L Kessler

**Program Manager:**

Carlos Torrez

## Technology Areas

**Primary:**

- TX14 Thermal Management Systems
  - └ TX14.2 Thermal Control Components and Systems
    - └ TX14.2.5 Thermal Control Analysis